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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,012

02/10/2006

Peter Neugebauer

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EXAMINER

CORNO JR, JAMES A

ART UNIT

PAPER NUMBER

1793

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,012	<b>Applicant(s)</b> NEUGEBAUER ET AL.	
	<b>Examiner</b> JAMES CORNO	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed February 6, 2009, have been fully considered but they are not persuasive.

Regarding applicant's argument of unexpected results, the results cannot be considered unexpected, as the advantages of granules of pyrogenic silica over precipitated silica and dispersed pyrogenic silica were known in the art at the time of the invention. See, for example, Hasenzahl et al. (WO 03/037379 A1), which teaches that typical loose pyrogenic silica adsorbates have insufficient flowability (p. 3, lines 22-33) and that precipitated silica typically has an unacceptably high water content (p. 4, lines 2-8).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, Deller teaches that pyrogenically prepared silica granules can be used as adsorption media, and thus its use as a carrier by absorbing various foodstuff additives on its surface would have been obvious to one of ordinary skill in the art.

The rejections under 35 USC 103 are therefore maintained and made final.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-14, 20, 26-27, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roman (US Patent No. 6,171,602) in view of Deller et al. (US Patent No. 5,776,240). Roman teaches powder comprising silanized porous silica granules used as carriers of various foodstuff additives. Roman does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Roman's powder because Deller specifically teaches that it is one intended use of the granules.

Regarding claims 2, 11, and 26, Roman teaches the use of riboflavin, which is both a food dye and a feedstuff additive.

Regarding claims 4 and 8-10, Deller teaches adsorbate particles silanized with any of the claimed silane compounds.

Regarding claims 5-7, 32, and 37, Deller teaches exactly the claimed dimensions and characteristics.

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Regarding claims 12-13 and 20, Roman teaches the use of ascorbic acid, which is an antioxidant, a food preservative, and an acid.

Regarding claim 14, Roman teaches the use of glyceryl ester derivatives as emulsifiers.

Regarding claim 25, Roman teaches the use of cinnamates, which are aroma agents.

Regarding claim 27, Roman teaches the use of cysteine, which is a chemical intermediate for the production of various food additives.

Regarding claim 33, Roman teaches the use of turmeric oleoresin.

Regarding claim 34, Roman teaches the use of beta-carotene, which is a free radical interceptor.

Regarding claims 35-36, Roman teaches that the silica granules absorb liquids in approximately a 1:1 ratio (col. 4, lines 62-67).

Claims 1, 3, 28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minemoto (JP 02049707 A) in view of Deller. Minemoto teaches a powder of boric acid adsorbed on porous silica granules. Boric acid acts as both an insecticide and a fungicide. Minemoto does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Minemoto's powder because Deller specifically teaches that it is one intended use of the

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granules. In addition, Minemoto's requirements of 10-5000 Å diameter pores, 0.05-3 cm<sup>3</sup>/g pore capacity, and 1-300 µm grain diameter are all satisfied by Deller's granules.

Claims 1, 19, 21, 29, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US Patent No. 5,654,258) in view of Deller. Park teaches a composition comprising trifluralin (a herbicide) in porous silica carrier particles. Park does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Park's herbicide composition because Deller specifically teaches that it is one intended use of the granules.

Regarding claims 19, 21, and 34, Park teaches that the particles may be coated in alkyl naphthalene sulfonate sodium salt (col. 4, line 49), which is an alkali salt used as a wetting agent.

Claims 1, 15-18, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. (US Patent No. 6,004,584) in view of Deller and the Degussa press release titled "Dry Binder - A New Concept for Pressed Powders," (June 12, 2003). Peterson teaches a body powder comprising powder carriers such as soy starch, modified corn starch, or microcrystalline cellulose (col. 3, lines 45-50); and binders such as isopropyl or magnesium myristate (col. 6, line 55). Peterson does not teach the use of pyrogenically prepared silica. "Dry Binder" teaches that granulated

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fumed silica (e.g. Aeroperl) is an ideal replacement for isopropyl or magnesium myristate as a dry binder in cosmetic applications, as it adsorbs the oily components and releases them upon compression. Deller teaches pyrogenically prepared silica granules which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to use Deller's silica granules as a dry binder in Peterson's body powder because "Dry Binder" teaches that silica granule adsorbates are superior dry binders, and Deller specifically teaches that it is one intended use of the granules.

Regarding claims 15-18, microcrystalline cellulose can be used as a gelling agent, thickener, binder, or stabilizer.

Regarding claim 22, the modified corn flour is an antilumping agent.

Regarding claim 23, soy starch contains glutamic acid, which is a flavor intensifier.

Claims 1 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Technical Bulletin Pigments No. 31 (Degussa AG, November 1995) in view of Deller. The Technical Bulletin teaches that silanized silica is useful as an adsorbate for molasses in order to make a free-flowing powder. The Technical Bulletin does not teach the use of pyrogenically prepared silica granules. Deller teaches pyrogenically prepared silica granules which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to

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use Deller's granules as an adsorbate for molasses as taught in the Technical Bulletin because Deller specifically teaches that it is one intended use of the granules.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES CORNO whose telephone number is (571)270-5829. The examiner can normally be reached on Monday-Thursday 9:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES CORNO/  
Examiner, Art Unit 1793

JC  
April 10, 2009

/Melvin Curtis Mayes/  
Supervisory Patent Examiner, Art Unit 1793